



DEPARTMENT OF ACCOUNTING AND FINANCE

Treasury Management and Derivatives

CLASS CODE: AG313

2023/24 SEMESTER 2

	Derivatives Part	International Finance and Treasury Management Part
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Class Tutors: TBC

Do not hesitate to contact us if you have any problems with the lectures or workshops. We have offices hour during the week but before visiting please try your best to e-mail stating your problem.

CLASS DESCRIPTION

This class is comprised of two parts. The first part introduces to the concept, definitions and valuation of derivatives products. The second part of the class provides an introduction to international finance and a number of issues facing a multinational business. The second part also includes an introduction to the role of a corporate treasurer in a multinational company and their main task of managing risk in an international environment. This class will provide a basis for the *International Financial Management* honours course and the Advanced Derivatives honours course and will develop on a number of aspects of the second year business finance course.

CLASS AIMS

The first part of the course is an introduction to the fundamentals of derivatives markets. The available range of derivative products will be presented along with the different types of participants in the markets. We will analyze the benefits and risks associated with the derivatives and examine the factors that can affect their prices. Particular emphasis will be placed on the valuation of options and futures offering students the opportunity to solve both simple and complex problems that will help provide a deeper understanding of the derivatives pricing. After analyzing the properties of stock options, the available trading strategies involving options will be investigated highlighting their importance and discussing their suitability given the investor's portfolio. We will also show how derivatives can be used for hedging purposes.

The second part of the course provides an introduction to international finance and the activities of treasury management. We will develop understanding of foreign exchange management within the broader area of multinational finance. We will consider the basic operation of the foreign exchange market, theories related to determination and changes in foreign exchange rates and how to manage foreign exchange risk, particularly using derivative products. The coverage of treasury activities will include discussion on the organizational aspects of treasury management, definitions of different sources of risk and finally, we will specifically focus on interest rate risk management utilizing derivative products. A significant emphasis will be placed on practical techniques and the solution of problems, though not to the exclusion of some theory.

LEARNING OUTCOMES

The following learning outcomes will contribute to your self-analysis and reflection in your Student's Personal Development Planning (SPDP). These learning outcomes will be assessed using the methods explained in the "Assessment" section in this Outline.

Subject specific knowledge and skills

On completing the course you will be able to understand and explain:

Derivatives products

- A.1. the operations of derivatives markets and the different types of traders.
- A.2. the valuation of forward and futures contracts.
- A.3. the use of futures for hedging purposes.
- A.4. the valuation of stock options and the Black-Scholes option pricing model.
- A.5. the factors affecting option prices.
- A.6. the range of trading strategies that can be implemented using stock options.
- A.7. the underlying risk of derivatives.

International Finance and Treasury Management

- A.1. Importance and workings of the foreign exchange (FX) market.
- A.2. Arbitrage opportunities in FX markets

- A.3. FX parity relationships
- A.4. Sources of FX risks
- A.5. Management of FX risks
- A.6. Meaning and measurement of interest rate risks
- A.7. Management of interest rate risks

Cognitive abilities and non-subject specific skills

- B.1. competence in interpreting and evaluating financial problems posed both in quantitative and non-quantitative terms.
- B.2. practical risk management problems using a case study approach (assignment).
- B.3. ability to connect academic theories to the practice of risk management
- B.4. team work and communication skills will also be developed in the assignment project
- B.5. information technology skills in use of the class web-sites and links, word processing and spreadsheet skills in tutorial preparation and in assessed projects.
- B.6. understand the language and observe the practice of treasury management industry by reading professional treasury journals.

TEACHING AND LEARNING

Students are introduced to the main themes and topics in the **lectures**. These are reinforced, extended and developed through the discussion of prepared questions in **workshops**. These questions are intended to check your understanding of the lecture content and your ability to explain the key concepts involved. This will prepare you for the modes of Assessment (explained below). Active participation in workshops is important and this will be encouraged by the tutor to the extent of occasionally requiring short presentations/discussions by the students. At all times students are expected to supplement their learning by reading the prescribed textbook(s), newspaper (such as Financial Times and Wall Street Journals) and web articles from services such as Bloomberg, Yahoo Finance, CNBC etc.

PRE-REQUISITES

The core finance classes for 1st and 2nd year Finance (AG151, AG215 & AG217).

LECTURES (Tuesday & Thursday) & WORKSHOPS (Thursday and Friday)

Derivative products

Week Number (Day)	Topic	Lecture Pre-Reading Chapters	Workshop
1 (Tuesday)	MS Lecture Introduction to Derivatives	Chapter 1 (H)	
1 (Thursday)	Futures Markets	Chapter 2 (H), pages 22-24, 26-30, 33-38, 41-42. Chapter 19 (BKM), pages 665-674.	
1 (Friday)			
2 (Tuesday)	Forward and Futures Prices	Chapter 5 (H), pages 101-114. Chapter 19 (BKM), pages 679-687.	
2 (Thursday)	Hedging using Futures	Chapter 3 (H), pages 47-65. Chapter 19 (BKM), pages 675-679.	Workshop 1(Dr)
2 (Friday)			Workshop 1(Dr)
3 (Tuesday)	Interest Rate Swaps Volcube: an interactive session with insights in real derivative trading	Chapter 7 (H), pages 148-154, 156- 158, 160-166. Chapter 4 (H), pages 86-89. Chapter 20 (BKM), pages 709-715.	
3 (Thursday)	Options Markets	Chapter 9 (H), pages 194-203, 209- 210. Chapter 17 (BKM), pages 576-587, 599-603.	Workshop 2(Dr)
3 (Friday)			Workshop 2(Dr)
4 (Tuesday)	Properties of Stock Options	Chapter 10 (H)	
4 (Thursday)	Trading Strategies with Stock Options	Chapter 11 (H), pages 234-244, 246-249. Chapter 17 (BKM), pages 587-596.	Workshop 3(Dr)
4 (Friday)			Workshop 3(Dr)
5 (Tuesday)	Option Pricing	Chapter 12 (H), pages 253-272. Chapter 18 (BKM), pages 627-633.	
5 (Thursday)	The Black-Scholes Option Valuation Model	Chapter 14 (H), pages 306-309, 313-323. Chapter 18 (BKM), pages 633-642.	Workshop 4(Dr)
5 (Friday)			Workshop 4(Dr)

LECTURES (Tuesday & Thursday) & WORKSHOPS (Thursday and Friday)
Treasury Management and International Finance

Week Num.	Day	Topic	Lecture Pre-Reading Chapters (TBC)	Workshop
6	Tuesday	1st hour of the lecture: No Lecture 2nd hour of the lecture: Class Test		
6	Thursday	Foreign Exchange Basics and Arbitrage	Chapter 3, pages: 67 – 77, (MF) Chapter 7, pages: 237 - 244, 249-252, (MF)	Workshop 5(Dr)
6	Friday			Workshop 5(Dr)
7	Tuesday	International Parity Relationships	Chapter 7, pages: 249-252 (MF) Chapter 8: pages: 266-271, 279-282, 286-287, (MF)	
7	Thursday	Foreign Exchange Exposures	Chapter 10, (MF)	
7	Friday			
8	Tuesday	Foreign Exchange Derivatives	Chapter 5, (MF)	
8	Thursday	Management of Foreign Exchange Exposures	Chapter 11 & 12, (MF)	Workshop 6 TMIF
8	Friday			Workshop 6 TMIF
9	Tuesday	Interest Rate Risk Management I	Chapter 13, (DR) pages 416 – 430 (only structure and strategies) – no pricing and valuations	
9	Thursday	Interest Rate Risk Management II	Chapter 13, (DR) pages 416 – 430 (only structure and strategies) – no pricing and valuations	Workshop 7 TMIF
9	Friday			Workshop 7 TMIF
10	Tuesday	Interest Rate Risk Management III	Chapter 13, (DR) pages 416 – 430 (only structure and strategies) – no pricing and valuations	
10	Thursday			Workshop 8 TMIF
10	Friday			Workshop 8 TMIF
11	Tuesday	No Lecture		
11	Thursday	No Lecture		Workshop 9 TMIF
11	Friday			Workshop 9 TMIF

*Coursework due (**Monday 12 pm, Week 10 of academic teaching week, semester 2**) – Submit online on myplace. MF: Madura and Fox, DR: Don and Robert, H = John C. Hull, MS = Morgan Stanley, (Dr) = Derivatives, TMIF = Treasury Management and International Finance. **Note:** Week no. 11 workshops may be rescheduled.

Workshop Topics

Workshop questions will be based on and expand on the topics covered in the lectures. There will be a number of topics which will be covered only in the workshop.

READINGS

The textbooks for this class are:

For Derivatives Part

1. **John C. Hull, Options Futures and Other Derivatives, 8th edition, Prentice Hall, 2012**
2. **Zvi Bodie, Alex Kane & Alan J. Marcus, Investments and Portfolio Management, 9th edition, McGraw-Hill, 2011**

For International Finance Part

3. **Madura, Jeff & Fox (MF), Roland, International Financial Management, 6th Edition, Cengage Learning (or previous editions)**

For Treasury Management Part

4. **Don M. Chance | Robert Brooks (CB) An Introduction to Derivatives and Risk Management, 10th Edition, Cengage Learning (or previous editions)**
5. **Lecture slides**

ASSESSMENT

Assessment is based on examination in the summer diet of exams. The exam will count for 60% of your final mark.

A class test will be held in week 6 counting for 20% of your final mark. A group assignment will be due on **Monday, Week 10 (Academic teaching week, semester 2, 12pm)**. This assignment will count for 20% of your final mark. The assignment requires *independent reading and researching*.

It is a requirement for course completion to submit all parts of the class assessment. Non-submission of any part will result in an overall mark of zero being awarded for the class.

The Department of Accounting and Finance is returning to on campus, **in person examinations** in all modules. To support you in your exam preparation in this module we will explain how to interpret an examination question and how to answer to maximise marks in the last lecture of both sessions (Derivatives and Treasury Management).

PENALTIES FOR LATE SUBMISSION

The Business School follows the University's policy for the late submission of assessed work:
[POLICY and procedure for LATE SUBMISSION OF COURSEWORK \(strath.ac.uk\)](#)

FEEDBACK

The standard turnaround time for all feedback and marking within SBS is 15 working days from assessment submission.

The University policy on Assessment and Feedback is available here:

[Assessment and Feedback Policy \(strath.ac.uk\)](#)

COMPENSATION SCHEME

The Faculty Compensation scheme is as follows:

[POLICY ON Compensation Scheme \(strath.ac.uk\)](#)

- Where a student has a weighted average of at least 45% (pass) across all classes, and class(es) for which the mark is 30-39% (fail), the failed class(es) will be deemed to have been passed by compensation.
- Where a first year class is passed by compensation, the student will not be permitted to proceed with that subject in second year, unless mitigating circumstances acceptable to the Board are met, and are submitted in advance of the meeting of the Board.
- Where a first, second or third year class is passed by compensation, the student will not normally be permitted to proceed to Honours in that subject, this is at the discretion of the department. The student does have the right to reject this pass and resit the class.

RESIT POLICY

1. Students who have failed a class will be given the opportunity to resit the class during the August resit diet.
2. Results for resits will not be capped at 40%.

Marking Guide

The following marking guide is consistent with the Universal Marking Guide for Undergraduate Courses contained in the University's Teaching and Learning Guide (December 2003).

%	Descriptor
90 -100 A*	<u>Truly Exceptional/Outstanding</u> demonstration of learning outcomes: <ul style="list-style-type: none">• wide, appropriate knowledge and understanding (and where appropriate effective project work) including insight and/or originality
80 - 89 A	<ul style="list-style-type: none">• evidence of reading and thought beyond course/assignment materials• appropriate use of references and exemplars• a high standard of writing and communication
70 - 79 B	<u>Excellent</u> demonstration of learning outcomes: <ul style="list-style-type: none">• wide, appropriate knowledge and understanding (and where appropriate effective project work) including insight and/or originality• evidence of reading and thought beyond course/assignment materials• appropriate use of references and exemplars• a high standard of writing and communication
60 - 69 C	<u>Comprehensively Good</u> demonstration of learning outcomes: <ul style="list-style-type: none">• wide appropriate knowledge and understanding (and where appropriate effective project work) with only occasional lapses in detail• evidence of reading and thought beyond course/assignment materials• a high standard of writing and communication
50 - 59 D	<u>Generally Good</u> demonstration of learning outcomes: <ul style="list-style-type: none">• sound knowledge and understanding of essential material (and where appropriate essential project skills)• general accuracy with occasional mistakes and/or uncoordinated use of information
40 - 49 E	<u>Satisfactory</u> demonstration of learning outcomes: <ul style="list-style-type: none">• basic knowledge and understanding (and where appropriate basic project skills)• omissions and/or weaknesses of presentation and/or logic and/or evidence
30 - 39 F	<u>Poor</u> performance in learning outcomes: <ul style="list-style-type: none">• some relevant information and limited understanding (and where appropriate some project work completed under supervision)• omissions and/or weaknesses of presentation and/or logic and/or evidence• lack of familiarity with the subject of assessment and/or assessment vehicle
20 - 29 G	<u>Weak</u> performance in learning outcomes: <ul style="list-style-type: none">• a few key words or phrases• serious errors
1 - 19 H	<ul style="list-style-type: none">• little evidence that learning or project work was seriously attempted
0	No relevant work submitted for assessment